



October 29, 2007

Charles L.A. Terreni
Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report (September 2007)
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of September 2007.

Sincerely,

s/ Len S. Anthony

Len S. Anthony
Deputy General Counsel – Regulatory Affairs

LSA/dhs
Enclosures
45612

c: John Flitter (ORS)

September 2007

The following units had no off-line outages during the month of September:

Brunswick Unit 2

Robinson Unit 2

Mayo Unit 1

Roxboro Unit 4

Brunswick Unit 1

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 1:36 on September 8, and returned to service at 13:19 on September 22, a duration of 347 hours and 43 minutes.
- B. Cause: Planned Service Water System Inspection
- C. Explanation: During routine inspections, several pieces of rubber material were found in the 1B Residual Heat Removal (RHR) room cooler. Investigation revealed that the material was likely from a degraded Service Water valve seal. The unit was removed from service to inspect the suspect Service Water valves and ensure all rubber material was recovered and removed from the system.
- D. Corrective Action: Service water valves were inspected and the defective valve was identified and repaired. Rubber valve seal material was removed from the system. While the unit was out of service, other repairs were completed including steam leak and reactor recirculation pump flow switch repairs, and replacement of reactor feedwater pump lube oil motors. These, and other maintenance activities, were done in parallel with the Service Water activities and did not lengthen the outage. These repairs were made to maximize the capability during the remainder of the operating cycle.

Harris Unit 1

Full Forced Outage

- A. Duration: The unit experienced an automatic trip from approximately 30% power at 22:32 on September 28 while preparing to shutdown for the scheduled refueling outage. The duration of the forced outage was 1 hour and 28 minutes. The scheduled refueling outage was scheduled to begin at 0:00 on September 29.
- B. Cause: Start-Up Transformer Trip
- C. Explanation: While the unit was ramping down in preparation for the scheduled refueling outage, a fault pressure trip signal was received on one of two start-up transformers which resulted in an automatic trip. Investigation revealed that a pressure sensor mis-signaled causing a false transformer failure signal.
- D. Corrective Action: The pressure sensor on the start-up transformer was replaced. Refueling outage activities were not impacted nor delayed.

Full Scheduled Outage

- A. Duration: The unit entered a scheduled refueling outage at 0:00 on September 29, and remained offline for the remainder of the month. The unit was offline 48 hours during the month due to the refueling outage.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage, and outage activities continued into the month of October. In addition to refueling, required maintenance and inspections are being out during the outage.
- D. Corrective Action: Planned outage activities were in progress at the end of September.

Roxboro Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:49 on September 22, and returned to service at 13:33 on September 27, a duration of 109 hours and 44 minutes.
- B. Cause: Inspection of Flue Gas Desulfurization System
- C. Explanation: The unit was taken offline to conduct inspections of the flue gas desulfurization system components.
- D. Corrective Action: Upon completion of the flue gas desulfurization system inspections, the unit was returned to service.

Roxboro Unit 3

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:35 on September 15, and returned to service at 18:25 on September 17, a duration of 42 hours and 50 minutes.
- B. Cause: Main Steam Valves
- C. Explanation: The unit was taken out of service to inspect, and perform preventative and corrective maintenance on main steam by-pass valves and the 3A circulator discharge valve.
- D. Corrective Action: Upon completion of inspections and maintenance on the main steam valves, the unit was returned to service.

	Month of September 2007		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	334,252 MWH		7,894,023 MWH		2
Capacity Factor	49.49 %		96.07 %		
Equivalent Availability	49.50 %		93.43 %		
Output Factor	95.72 %		101.51 %		
Heat Rate	10,857 BTU/KWH		10,347 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	326,159	48.29	326,159	3.97	3
Partial Scheduled	14,912	2.21	47,708	0.58	4
Full Forced	0	0.00	114,389	1.39	5
Partial Forced	37	0.01	40,555	0.49	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	675,360		8,216,880		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	937 MW		937 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	656,626 MWH		6,562,743 MWH		2
Capacity Factor	97.33 %		79.95 %		
Equivalent Availability	96.93 %		79.31 %		
Output Factor	97.33 %		98.52 %		
Heat Rate	10,619 BTU/KWH		10,574 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	1,040,570	12.68	3
Partial Scheduled	20,719	3.07	111,734	1.36	4
Full Forced	0	0.00	506,464	6.17	5
Partial Forced	0	0.00	35,902	0.44	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	674,640		8,208,120		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	900 MW		900 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	600,239 MWH		7,969,960 MWH		2
Capacity Factor	92.63 %		101.09 %		
Equivalent Availability	93.06 %		99.42 %		
Output Factor	99.46 %		101.66 %		
Heat Rate	11,053 BTU/KWH		10,814 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	456	0.07	1,450	0.02	4
Full Forced	44,520	6.87	44,520	0.56	5
Partial Forced	2,784	0.43	13,832	0.18	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	648,000		7,884,000		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	710 MW		710 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	525,693 MWH		5,690,735 MWH		2
Capacity Factor	102.84 %		91.50 %		
Equivalent Availability	100.00 %		87.89 %		
Output Factor	102.84 %		103.14 %		
Heat Rate	10,923 BTU/KWH		10,815 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	628,586	10.11	3
Partial Scheduled	0	0.00	16,784	0.27	4
Full Forced	0	0.00	73,508	1.18	5
Partial Forced	0	0.00	28,172	0.45	6
Economic Dispatch	0	0.00	9,775	0.16	7
Possible MWH	511,200		6,219,600		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	741 MW		742 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	391,113 MWH		4,594,206 MWH		2
Capacity Factor	73.31 %		70.78 %		
Equivalent Availability	93.93 %		90.99 %		
Output Factor	73.31 %		75.41 %		
Heat Rate	10,419 BTU/KWH		10,440 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	363,815	5.60	3
Partial Scheduled	32,375	6.07	115,448	1.78	4
Full Forced	0	0.00	35,457	0.55	5
Partial Forced	0	0.00	70,417	1.08	6
Economic Dispatch	110,032	20.62	1,320,653	20.32	7
Possible MWH	533,520		6,499,920		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	639 MW		647 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	367,125 MWH		4,318,197 MWH		2
Capacity Factor	79.80 %		76.22 %		
Equivalent Availability	83.04 %		85.08 %		
Output Factor	94.14 %		87.73 %		
Heat Rate	9,186 BTU/KWH		9,274 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	70,119	15.24	578,970	10.22	3
Partial Scheduled	7,920	1.72	168,123	2.97	4
Full Forced	0	0.00	73,017	1.29	5
Partial Forced	0	0.00	17,160	0.30	6
Economic Dispatch	14,916	3.24	527,361	9.31	7
Possible MWH	460,080		5,665,530		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	705 MW		706 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	372,740 MWH		3,799,102 MWH		2
Capacity Factor	73.43 %		61.47 %		
Equivalent Availability	93.26 %		77.80 %		
Output Factor	78.08 %		76.63 %		
Heat Rate	11,109 BTU/KWH		11,024 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	30,197	5.95	1,097,956	17.77	3
Partial Scheduled	4,000	0.79	69,825	1.13	4
Full Forced	0	0.00	100,968	1.63	5
Partial Forced	30	0.01	105,416	1.71	6
Economic Dispatch	100,632	19.83	1,004,098	16.25	7
Possible MWH	507,600		6,180,180		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of September 2007		Twelve Month Summary		See Notes*
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MDC	698 MW		699 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	374,417 MWH		4,278,966 MWH		2
Capacity Factor	74.50 %		69.93 %		
Equivalent Availability	99.67 %		97.06 %		
Output Factor	74.50 %		70.48 %		
Heat Rate	10,466 BTU/KWH		10,503 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	39,728	0.65	3
Partial Scheduled	0	0.00	116,099	1.90	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	1,677	0.33	24,174	0.40	6
Economic Dispatch	126,466	25.16	1,659,931	27.13	7
Possible MWH	502,560		6,118,860		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

** Gross of Power Agency

Plant	Unit	Current MW Rating	January 2006 - December 2006	September 2007	January 2007 - September 2007
Asheville	1	197	72.44	80.33	59.79
Asheville	2	186	60.37	59.53	71.98
Cape Fear	5	144	72.32	83.90	79.13
Cape Fear	6	173	65.99	76.61	72.87
Lee	1	77	47.56	64.49	60.27
Lee	2	77	43.52	65.77	63.07
Lee	3	252	60.06	70.55	70.43
Mayo	1	741	67.04	73.31	71.65
Robinson	1	180	78.19	59.07	72.76
Roxboro	1	383	77.79	83.88	81.43
Roxboro	2	639	81.26	79.80	75.03
Roxboro	3	705	59.60	73.43	74.98
Roxboro	4	698	65.20	74.50	72.57
Sutton	1	97	44.30	60.62	59.80
Sutton	2	106	46.43	50.01	63.82
Sutton	3	403	54.54	62.74	53.52
Weatherspoon	1	49	36.15	63.87	55.43
Weatherspoon	2	49	37.40	66.40	57.58
Weatherspoon	3	79	50.52	70.58	68.11
Fossil System Total		5,235	65.25	72.65	70.74
Brunswick	1	938	87.51	49.49	93.86
Brunswick	2	937	89.68	97.33	82.32
Harris	1	900	89.16	92.63	100.39
Robinson Nuclear	2	710	103.59	102.84	87.70
Nuclear System Total		3,485	91.80	84.36	91.19
Total System		8,720	75.80	77.33	78.91

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of $\geq 92.5\%$ during the 12 month period under review. For the test period April 1, 2007 through September 30, 2007, actual period to date performance is summarized below:

Period to Date: April 1, 2007 to September 30, 2007

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period A = 13,734,888 MWH

B. Total number of hours during SCPSC test period B = 4,392 hours

C. Nuclear system MDC during SCPSC test period (see page 2) C = 3,485 MW

D. Reasonable nuclear system reductions (see page 2) D = 1,711,096 MWH

A. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 = 100.9\%$

NOTE:

If Line Item E $> 92.5\%$, presumption of utility's minimum cost of operation.

If Line Item E $< 92.5\%$, utility has burden of proof of reasonable operations.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: April 1, 2007 to September 30, 2007

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	0	392,521	0	628,587	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	475,593	19,291	44,520	34,707	
Reasonable coast down power reductions (MWH)	0	0	0	6,195	
Reasonable power ascension power reductions (MWH)	31,774	30,849	0	22,063	
Prudent NRC required testing outages (MWH)	3,377	6,967	456	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	14,196	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	510,744	449,628	44,976	705,748	
Total reasonable outage time exclusions [carry to Page 1, Line D]					1,711,096